

The present invention relates to undifferentiated human embryonic stem cells, methods of cultivation and propagation, production of differentiated cells and in particular the production of human embryonic stem cells capable of yielding somatic differentiated cells *in vitro*, as well as committed progenitor cells capable of giving rise to mature somatic cells and uses thereof. The present invention also provides a purified preparation of undifferentiated human embryonic stem cells capable of proliferation *in vitro*. Furthermore, the present invention provides a somatic cell differentiated *in vitro* from an undifferentiated embryonic stem cell. There is also provided a committed progenitor cell capable of giving rise to mature somatic cells.